

AMENDMENTS TO CLAIMS

1. **(currently amended)** A method for providing a redundant Fibre Channel path, comprising:

detecting a connection change in a Fibre Channel network; and
verifying by a ~~backup~~ storage device that the storage device has a path to a connection associated with the connection change.

2. **(original)** The method of claim 1, wherein the detecting a connection change further comprises issuing a state change notification indicating a device has been added to the Fibre Channel network.

3. **(original)** The method of claim 1, wherein the detecting a connection change further comprises issuing a state change notification indicating a device has been removed from the Fibre Channel network.

4. **(original)** The method of claim 1, wherein the detecting a connection change further comprises issuing a state change notification indicating a device has failed and severed a connection to the Fibre Channel network.

5. **(currently amended)** The method of claim 1, wherein the verifying further comprises querying a name table by the ~~backup~~ storage device to determine whether the ~~backup~~ storage device has a redundant path to the connection associated with the connection change.

6. **(currently amended)** The method of claim 1 further comprising moving a World Wide Name and World Wide Port Name associated with the connection change to the ~~backup~~ storage device to provide a redundant path to the connection associated with the connection change.

7. **(previously presented)** The method of claim 1, wherein the detecting a connection change further comprises receiving an indication from a Loop Initialization Primitive indicating a device has been added to an Arbitrated Loop.

8. **(previously presented)** The method of claim 1, wherein the detecting a connection change further comprises receiving an indication from a Loop Initialization Primitive indicating a device has been removed from an Arbitrated Loop.

9. **(previously presented)** The method of claim 1, wherein the detecting a connection change further comprises receiving an indication from a Loop Initialization Primitive indicating a device has failed and severed a connection to an Arbitrated Loop.

10. **(currently amended)** The method of claim 1, wherein the verifying further comprises querying a Topology Database to determine whether ~~a backup~~ the storage device has a redundant path to the connection associated with the connection change.

11. **(currently amended)** The method of claim 1 further comprising moving an Arbitrated Loop Physical Address associated with the connection change to ~~a backup~~ the storage device to provide a redundant path to a connection associated with the connection change.

12. **(currently amended)** The method of claim 1, wherein the verifying further comprises periodically verifying that the backup storage device has a path to a connection associated with the connection change.

13. **(original)** The method of claim 1, wherein the verifying further comprises providing a warning of lack of redundancy when the ~~backup storage~~ device does not have a path to a connection associated with the connection change.

14. **(previously presented)** The method of claim 13, wherein the verifying further comprises taking corrective action in response to the warning of lack of redundancy.

15. **(currently amended)** A device port adapter for providing a redundant Fibre Channel path, comprising:

a port coupled to a Fibre Channel network, and

a processor, coupled to the port, the processor configured for detecting a

connection change in a Fibre Channel network and verifying the port has

a path to a connection associated with the connection change,

wherein the port adapter is included in a storage device or in the Fibre Channel network.

16. **(currently amended)** The ~~device port adapter~~ of claim 15, wherein the processor detects a connection change in response to a state change notification indicating a device has been added to the Fibre Channel network.

17. **(currently amended)** The ~~device port adapter~~ of claim 15, wherein the processor detects a connection change in response to a state change notification indicating a device has been removed from the Fibre Channel network.

18. **(currently amended)** The ~~device~~ port adapter of claim 15, wherein the processor detects a connection change in response to a state change notification indicating a device has failed and severed a connection to the Fibre Channel network.

19. **(currently amended)** The ~~device~~ port adapter of claim 15, wherein the processor verifies the port has a path to a connection associated with the connection change by querying a name table to determine whether the port is coupled via a redundant path to the connection associated with the connection change.

20. **(currently amended)** The ~~device~~ port adapter of claim 15, wherein a World Wide Name and World Wide Port Name associated with the connection change is changed to be associated with the port to provide a redundant path to the connection associated with the connection change.

21. **(currently amended)** The ~~device~~ port adapter of claim 15, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has been added to ~~the~~ an Arbitrated Loop.

22. **(currently amended)** The ~~device~~ port adapter of claim 15, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has been removed from ~~the~~ an Arbitrated Loop.

23. **(currently amended)** The ~~device~~ port adapter of claim 15, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has failed and severed a connection to ~~the~~ an Arbitrated Loop.

24. **(currently amended)** The ~~device~~ port adapter of claim 15, wherein the processor verifies the port has a path to a connection associated with the connection change by querying a Topology Database to determine whether the port is coupled via a redundant path to the connection associated with the connection change.

25. **(currently amended)** The ~~device~~ port adapter of claim 15 further comprising an Arbitrated Loop Physical Address associated with the connection change, wherein the Arbitrated Loop Physical Address associated with the connection change is changed to be associated with the port to provide a redundant path to the connection associated with the connection change.

26. **(currently amended)** The ~~device~~ port adapter of claim 15, wherein the processor verifies the port has a path to a connection associated with the connection change by periodically verifying the port has a path to a connection associated with the connection change.

27. **(currently amended)** The ~~device port adapter~~ of claim 15, wherein the processor provides a warning of lack of redundancy when the port does not have a path to a connection associated with the connection change.

28. **(currently amended)** The ~~device port adapter~~ of claim 27, wherein the processor takes corrective action in response to the warning of lack of redundancy.

29. **(currently amended)** A network providing a redundant Fibre Channel path, comprising:

a local node within a storage device;

~~a remote node~~; and

a Fibre Channel network coupling the local node and the remote node, wherein at least one of the local node, ~~remote node~~ and the Fibre Channel network includes a first physical interface and a backup physical interface, wherein the backup physical interface further comprises:

a port coupled to a Fibre Channel network, and

a processor, coupled to the port, the processor configured for detecting a connection change in a Fibre Channel network and verifying the backup physical interface has a path to a connection associated with the connection change.

30. **(original)** The network of claim 29, wherein the processor detects a connection change in response to a state change notification indicating a device has been added to the Fibre Channel network.

31. **(original)** The network of claim 29, wherein the processor detects a connection change in response to a state change notification indicating the first physical interface has been removed from the Fibre Channel network.

32. **(original)** The network of claim 29, wherein the processor detects a connection change in response to a state change notification indicating the first physical interface has failed and severed a connection to the Fibre Channel network.

33. **(original)** The network of claim 29, wherein the processor verifies the backup physical interface has a path to a connection associated with the connection change by querying a name table to determine whether the backup physical interface is coupled via a redundant path to the connection associated with the connection change.

34. **(original)** The network of claim 29, wherein a World Wide Name and World Wide Port Name associated with the connection change is changed to be associated

with the backup physical interface to provide a redundant path to the connection associated with the connection change.

35. **(original)** The network of claim 29, wherein the processor verifies the backup physical interface has a path to a connection associated with the connection change by periodically verifying the backup physical interface has a path to a connection associated with the connection change.

36. **(previously presented)** The network of claim 29, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has been added to an Arbitrated Loop.

37. **(previously presented)** The network of claim 29, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has been removed from an Arbitrated Loop.

38. **(previously presented)** The network of claim 29, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has failed and severed a connection to an Arbitrated Loop.

39. **(original)** The network of claim 29, wherein the processor verifies the port has a path to a connection associated with the connection change by querying a Topology Database to determine whether the port is coupled via a redundant path to the connection associated with the connection change.

40. **(original)** The network of claim 29 further comprising an Arbitrated Loop Physical Address associated with the connection change, wherein the Arbitrated Loop Physical Address associated with the connection change is changed to be associated with the port to provide a redundant path to the connection associated with the connection change.

41. **(original)** The network of claim 29, wherein the processor provides a warning of lack of redundancy when the backup physical interface does not have a path to a connection associated with the connection change.

42. **(original)** The network of claim 41, wherein the processor takes corrective action in response to the warning of lack of redundancy.

43. **(currently amended)** A program storage device readable by a ~~computer~~ processor, the program storage device tangibly embodying one or more programs of instructions executable by the ~~computer~~ processor to perform a method for providing a redundant Fibre Channel path, the method comprising:

detecting a connection change in a Fibre Channel network; and
verifying a backup device has a path to a connection associated with the
connection change,

wherein the processor is included in the storage device or in the Fibre Channel network.

44. **(original)** The program storage device of claim 43, wherein the verifying further comprises querying a name table by the backup device to determine whether the backup device has a redundant path to the connection associated with the connection change.

45. **(original)** The program storage device of claim 43 further comprising moving a World Wide Name and World Wide Port Name associated with the connection change to the backup device to provide a redundant path to the connection associated with the connection change.

46. **(currently amended)** A device for providing a redundant Fibre Channel path, comprising:

Means, within a storage node or a Fibre Channel network, for providing a port to ~~[[a]]~~the Fibre Channel network, and

means, within the storage node or the Fibre Channel network, for processing coupled to the means for providing a port, the means for processing detecting a connection change in a Fibre Channel network and verifying the means for providing a port has a path to a connection associated with the connection change.

47. **(currently amended)** A network providing a redundant Fibre Channel path, comprising:

a local node within a storage device;

~~a remote node~~; and

a Fibre Channel network coupling the local node and the remote node,

wherein at least one of the local node, ~~remote node~~ and the Fibre Channel network includes a first means for providing a physical interface and a second means for providing a backup physical interface, wherein the second means further comprises:

means for providing a port to a Fibre Channel network, and

means for processing coupled to the means for providing a port, the means for processing detecting a connection change in a Fibre Channel network and verifying the backup physical interface has a path to a connection associated with the connection change.